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Application No.: 10/087,224
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Title: System and Method for State Data Back-up in a Distributed Data System

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Examiner: Lin, Kelvin Y
Group/Art Unit: 2142
Atty. Dkt. No: 5681-12100

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Robert C. Kowert
Printed Name

Signature

September 14, 2006
Date

APPEAL BRIEF

Box: Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir/Madam:

Further to the Notice of Panel Decision mailed August 14, 2006, Appellants present this Appeal Brief. **This Appeal Brief is timely filed within the one month period from the mailing date of the Notice of Panel Decision. Accordingly, no extension of time fee should be due.** Appellants respectfully request that the Board of Patent Appeals and Interferences consider this appeal.

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I. REAL PARTY IN INTEREST

The subject application is owned by Sun Microsystems, Inc., a corporation organized and existing under and by virtue of the laws of the State of Delaware, and now having its principal place of business at 4150 Network Circle, Santa Clara, CA 95054.

II. RELATED APPEALS AND INTERFERENCES

No related appeals or interferences are known which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 1-26 are pending in the case. Claims 1-26 stand rejected under 35 U.S.C. § 102(e) and are the subject of this appeal. A copy of claims 1-26, incorporating entered amendments, as on appeal, is included in the Claims Appendix hereto.

IV. STATUS OF AMENDMENTS

No amendments to the claims have been filed subsequent to the rejection in the Final Office Action of April 5, 2006. The Claims Appendix hereto reflects the current state of the claims.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The present application relates to providing quality of service in a networked environment and more particularly to state backup of session information in a distributed data system.

Independent claim 1 recites a system which includes a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality of attributes. *See, e.g., at least paragraphs [0002]-[0009], [0027]-[0029], [0044], [0052]-[0059], [0066], [0067], [0076-0080]; Figures 1, 2, 5, 8, and 11.* The system also includes another node comprising a back-up instance of the primary state. *See, e.g., paragraphs [0008], [0066]-[0069], [0071]-[0074]; Figures 11-14.* The system is configured to compare the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state. *See, e.g., paragraphs [0055]-[0057], [0061], [0064], [0068]-[0071], [0073], [0074]-[0076]; Figures 6, 7, 11-14.* The system is also configured to synchronize the back-up instance of the primary state with the primary state using the subset of the attributes of the session data. *See, e.g., at least paragraphs [0067], [0071]-[0078]; Figures 6, 7, 11-14.*

Independent claim 7 recites a system which includes a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality of attributes. *See, e.g., at least paragraphs [0002]-[0009], [0027]-[0029], [0044], [0052]-[0059], [0066], [0067], [0076-0080]; Figures 1, 2, 5, 8, and 11.* The system also includes another node comprising a back-up instance of the primary state. *See, e.g., paragraphs [0008], [0066]-[0069], [0071]-[0074]; Figures 11-14.* The system is configured to compare the primary state to a benchmark of the primary state to generate a set of attributes that are mutable attributes for use in synchronizing the back-up instance of the primary state with the primary state. *See, e.g., paragraphs [0055]-[0057], [0061], [0064], [0068]-[0071], [0073], [0074]-[0076]; Figures 6, 7, 11-14.* The system is also configured to

synchronize the back-up instance of the primary state with the primary state using the according to the generated set of the mutable attributes of the session data. *See, e.g., at least paragraphs [0067], [0071]-[0078]; Figures 6, 7, 11-14.*

Independent claim 11 recites a system which includes a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality of attributes. *See, e.g., at least paragraphs [0002]-[0009], [0027]-[0029], [0044], [0052]-[0059], [0066], [0067], [0076-0080]; Figures 1, 2, 5, 8, and 11.* The system also includes another node comprising a back-up instance of the primary state. *See, e.g., paragraphs [0008], [0066]-[0069], [0071]-[0074]; Figures 11-14.* The system includes means for determining a set of the attributes of the session data that differ between the primary state and the other instance of the primary state. *See, e.g., paragraphs [0002]-[0009], [0027], [0055]-[0057], [0061], [0064], [0068]-[0071], [0073], [0074]-[0080]; Figures 1, 2, 5-8, 11-14.* The system further includes means for synchronizing the other instance of the primary state with the primary state using the set of the attributes of the session data that differ between the primary state and the other instance of the primary state. *See, e.g., at least paragraphs [0002]-[0009], [0027], [0067], [0071]-[0080]; Figures 1, 2, 5-8, 11-14.*

Independent claim 15 recites a method which includes providing access to a primary state of session data comprised by a distributed store node to a plurality of application servers, wherein the session data comprises a plurality of attributes. *See, e.g., at least paragraphs [0002]-[0009], [0027]-[0029], [0044], [0052]-[0059], [0066], [0067]; Figures 1-5, 8, and 11.* The method also includes comparing the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state. *See, e.g., paragraphs [0055]-[0057], [0061], [0064], [0068]-[0071], [0073], [0074]-[0076]; Figures 6, 7, 11-14.* Additionally, the method includes synchronizing the another instance of the primary state comprised by another node with the primary state using the subset of the attributes of the session data. *See, e.g., at least paragraphs [0067], [0071]-[0078]; Figures 6, 7, 11-14.*

Independent claim 21 recites a tangible computer accessible medium which includes software instructions executable to implement providing access to a primary state of session data comprised by a distributed store node to a plurality of application servers, wherein the session data comprises a plurality of attributes. *See, e.g., at least paragraphs [0002]-[0009], [0027]-[0029], [0044], [0052]-[0059], [0066], [0067], [0076-0080]; Figures 1, 2, 5, 8, and 11.* The instructions are also executable to implement comparing the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state. *See, e.g., paragraphs [0002]-[0009], [0027], [0055]-[0057], [0061], [0064], [0068]-[0071], [0073], [0074]-[0080]; Figures 1, 2, 5-8, 11-14.* Additionally, the instructions are also executable to implement synchronizing the another instance of the primary state comprised by another node with the primary state using the subset of the attributes of the session data. *See, e.g., at least paragraphs [0002]-[0009], [0027], [0067], [0071]-[0080]; Figures 1, 2, 5-8, 11-14.*

The summary above describes various examples and embodiments of the claimed subject matter; however, the claims are not necessarily limited to any of these examples and embodiments. The claims should be interpreted based on the wording of the respective claims.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-26 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Everdell et al (U.S. Publication 2002/0165961, hereinafter "Everdell").

VII. ARGUMENT

Claims 1-26 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Everdell et al (U.S. Publication 2002/0165961, hereinafter "Everdell"). Appellant respectfully traverses this rejection for the following reasons. Different groups of claims are addressed under their respective subheadings.

Claims 1, 11, 12, 15 and 21

Regarding claim 1, Everdell fails to disclose a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality of attributes. Appellants note that Everdell's method and system provides control of network resource allocations of multiple devices. More specifically, Everdell teaches methods for providing sufficient bandwidth to the devices to prevent starvation during high-traffic conditions as well as during single or multiple device failures across the network. With regard to the above-noted feature of Appellants' claim 1, the Examiner cites paragraphs [0125] and [0121]; however, these paragraphs do not disclose the limitation of claim 1 recited above. For example, paragraph [0121] discloses that network manager systems (NMS) "are used to configure and manage multiple heterogeneous and/or homogeneous network devices". More particularly, this paragraph states:

> To configure a network device, the network administrator uses the NMS to provision services. For example, the administrator may connect a cable to a port of a network device and then use the NMS to enable the port...To manage a network device, the NMS interprets data gathered by programs running on each network device relevant to network configuration, security, accounting, statistics, and fault logging and presents the interpretation of this data to the network administrator. The network administrator may use this data to, for example, determine when to add new hardware and/or services to the network device, to determine when new network devices should be added to the network, and to determine the cause of errors.

Thus, the NMS may be used to configure and manage devices on a network. Appellants assert that one skilled in the art would readily understand that the NMS is not

a first node of a distributed store comprising a primary state of **session data** configured for access by a plurality of application servers, wherein the **session data** comprises a plurality of attributes. Managing a network, as in Everdell, does not disclose this feature of claim 1. Regarding paragraph [0125], Appellants note that Everdell teaches two configuration databases: a configuration relationship database and an NMS relationship database, which may be used to change various aspects of the configuration of the network. While Everdell does disclose a database for storing configuration information of a network system, Appellants assert that Everdell nowhere discloses *a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers*. One skilled in the art understands that configuration information of a network is not a primary state of session data configured for access by a plurality of application servers.

> In his Response to Arguments, the Examiner states:
>
> In terms of session data attributes, the NMS server retrieves metadata from class table (Fig. 11w, element NMS database 1020). The metadata includes a list of simple attributes including host address, port address etc.. are used for the connection (Everdell, [0347], [0350]). [*Sic*]

A network connection is not the same as a session, as is well known by anyone of skill in the art to which the present invention pertains. Moreover, cited paragraphs of Everdell, [0347], [0350], describe metadata stored in classes associated with the NMS database, e.g., of a particular device. As disclosed by Everdell and cited by the Examiner, the metadata may include "a list of simple attributes including host address 1028a, port address 1028b, SNMP retry value 1028c, SNMP timeout value 1028d and a database port address 1028e for connecting to the configuration database within the network device". Appellants assert that the metadata associated with configuration of a particular device is not *a plurality of attributes comprised in session data* configured for access by a plurality of application servers. In the art of application servers, session data pertains to ongoing exchanges between a client and server. **Network configuration data, as in Everdell, is not session data**. Moreover, nowhere does Everdell disclose *session* data comprising a plurality attributes, let alone a first node of a distributed store

comprising a primary state of session data configured for access by a plurality of application servers. **The concept of session data accessed by application servers is very well understood in the art. No one of any skill in the art would consider the network configuration data of Everdell to be session data as recited in Appellants' claim 1.**

In the Advisory Action, the Examiner again asserts that the NMS database software teaches this feature of claim 1. More specifically, the Examiner argues that the computer system establishes the NMS server upon a first server power up. The Examiner seems to imply that this somehow teaches the first node of the distributed store **with a primary state of session data** recited in claim 1. As argued above, Everdell nowhere discloses session data. Furthermore, the DDL file is described numerous times in the description of Everdell. The DDL file is used to set up the configuration database, e.g., using SQL commands to generate the tables where information is stored. The generation of a configuration database on a first power up of a computer system has nothing to do *whatsoever* with the limitation recited above.

Additionally, the Examiner reviewed the specification of the instant Application and stated: "Furthermore, in reviewing the specification, on page 16, paragraph [0053], it mentions the name of attributes 400, but does not describe the structure or the contents associated with the subject matter". The Examiner goes on to imply that the descriptions of attributes does not enable one skilled in the art to make the invention. However, Appellants note that the attributes of the session data are described numerous times throughout the specification, not just at paragraph [0053] (see Summary of Claimed Subject Matter above). Moreover, the concept of attributes of session data is extremely well-understood in the art. Correspondingly, Appellants assert that one skilled in the art could implement the session data with attributes described in the specification and recited in the claims. **Moreover, anyone of ordinary skill in the art would easily recognize that the Everdell does not pertain to attributes of session data.**

With further regard to claim 1, Everdell fails to disclose another node comprising a back-up instance of the primary state. As argued above, Everdell fails to teach a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers. Nor does Everdell teach another node comprising a **back-up instance** of the **primary state** of the session data.

In the Advisory Action, the Examiner asserts that paragraph [0122] teaches this feature. More specifically, this paragraph discloses that the NMS programs interact with a single configuration repository (the NMS configuration database) and use a unified logical model and system to interact with data. Thus, Everdell teaches the use of API and a single configuration database; however, this teaching is not pertinent **at all** to the recited limitation above. There is no mention whatsoever of another node comprising a back-up instance of the primary state in this paragraph or anywhere else in Everdell.

Further in regard to claim 1, Everdell fails to disclose comparing the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state. With regard to this feature of claim 1, the Examiner asserts in his Response to Arguments:

> Everdell discloses that the network device keep track of important statistics including average client/server response time and response times to each network device. By looking at these statistics the network administrator tune the NMS to provide better overall management service.(Everdell, [0134]). And the code generation system provides data consistency across processes, centralized tuning and an abstraction of embedded configuration and NMS database (Everdell, [0166]). Therefore, Everdell discloses comparing the primary state to a statistic performance data and the code generation system generated the tuning code of embedded configuration of the primary state. [*Sic*]

Everdell teaches that the NMS server keeps track of important statistics such as which devices are the "heavy talkers" in the network, and that using these statistics, the network administrator may "determine when it is time to grow the management system by adding another server". However, Appellants assert that these statistics, and actions which a user can perform after examining them, have absolutely no relevance at all to

comparing the primary state to a **benchmark** of the **primary state** to **generate a subset of the attributes** **of the session data** **that have been modified** **in the primary state**. Everdell's code generation system provides "centralized tuning and an abstraction of embedded configuration and NMS databases" which ensures "that changes to their database schema do not affect existing processes"; however, this code generation system and abstraction layer is irrelevant with respect to this feature of claim 1. The code generation system taught by Everdell nowhere mentions *or even hints at* comparing the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state. Furthermore, the Examiner seems to imply that simply because Everdell states that the network administrator can choose to expand his network after looking at statistics of the current configuration state, and that, in an unrelated paragraph, a code generation system exists that may provide centralized tuning and an abstraction layer, this feature of claim 1 is somehow disclosed. Appellants assert that the Examiner has not provided any evidence whatsoever that Everdell even hints at this element of claim 1, much less providing the required evidence that Everdell teaches the identical invention in the complete detail contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Everdell nowhere teaches comparing the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state.

With further regard to claim 1, Everdell fails to disclose synchronizing the back-up instance of the primary state with the primary state using the subset of the attributes of the session data. In his Response to Arguments, the Examiner cites paragraphs [0126] and [0127] of Everdell to teach this limitation. However, these paragraphs teach that changes made by the administrator in the configuration database may be automatically replicated in the NMS databases. More specifically, Everdell discloses:

> Maintaining a primary or master repository of data within each network device ensures that the NMS and network device are always synchronized with respect to the state of the configuration. Replicating changes made to the primary database within the network device to any secondary data

repositories, for example, NMS database 61, ensures that all secondary data sources are quickly updated and remain in lockstep synchronization.

Appellants note that Everdell also discloses:

> Instead of automatically replicating changes to the NMS database through active queries, only certain data, as configured by the network administrator, may be replicated. Similarly, instead of immediate replication, the network administrator may configure periodic replication. For example, data from the master embedded database (i.e., the configuration database) can be uploaded daily or hourly. In addition to the periodic, scheduled uploads, backup may be done anytime at the request of the network administrator.

Thus, Everdell teaches that changes made in the configuration database may be replicated to the NMS database. Additionally, the network administrator may specify that only certain data be replicated, and that the update may occur periodically. However, Everdell, neither in these paragraphs, nor anywhere else, teaches *synchronizing the back-up instance of the primary state with the primary state using the subset of the attributes of the session data* as recited in claim 1. Again, the Examiner has provided no evidence whatsoever that the replication process taught by Everdell teaches the synchronization taught in claim 1. Moreover, Appellants assert that Everdell nowhere teaches the synchronization process of the back-up instance with the primary state using the subset of attributes of the **session data** recited in claim 1. As argued above, the configuration data stored in the databases are not session data much less using the subset of attributes of the session data to perform the synchronization as recited in claim 1. Thus, for at least the reasons provided above, Everdell fails to disclose this feature of claim 1.

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The **identical** invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). As discussed above, Everdell clearly fails to disclose a system configured with a first node of

a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality of attributes. Furthermore Everdell completely fails to mention a back-up instance of the primary state of the session data. Everdell also fails to generate of a subset of attributes of the session data that have been modified from the primary state and synchronize the back-up instance of the primary state with the primary state using the subset of the attributes of the session data. Therefore, Everdell clearly cannot be said to anticipate claim 1. For at least the reasons presented above, the rejection of claim 1 is not supported by the cited art and removal thereof is respectfully requested.

Claims 2, 13, 16, and 22

Regarding claim 2, in addition to the novel limitations of claim 1, Everdell also fails to disclose that, to compare the primary state to the benchmark of the primary state, the system is further configured to perform binary differencing of a binary representation of the primary state and a binary representation of the benchmark of the primary state to determine the modified attributes. With regard to this feature of claim 2, the Examiner cites paragraph [0566] which describes an audit process for synchronizing processes which have been restarted. For example, a pertinent portion of this paragraph discloses: "the audit process allows processes like device drivers and ATM applications to compare information, for example, connection tables, and resolve differences". Clearly, this paragraph does not relate to the primary and benchmark state of session data recited in the claims. Moreover, Everdell nowhere discloses, mentions, or *even hints at* performing binary differencing of a binary representation of the primary state and a binary representation of the benchmark of the primary state to determine the modified attributes. Appellants note that the Examiner asserts "in which the comparison of the connection table (connected/disconnected) corresponds to the binary differencing of binary representation". Contrary to the Examiner's assertion, the synchronization of connections for restarted processes has nothing to do with the binary differencing of primary states of **session data** and benchmark states of **session data**. The simple fact that the newly started process can be

in one of two states (connected/disconnected) **in no way** discloses or implies binary differencing of binary representations of states of session data. One skilled in the art would not mistake the teachings of Everdell for the binary differencing of binary representations of state session data for the synchronization of restarted processes taught by Everdell. For at least the reasons presented above, the rejection of claim 2 is not supported by the cited art and removal thereof is respectfully requested.

Claim 3, 17, and 23

Regarding claim 3, in addition to the novel limitations of claim 2, Everdell fails to disclose that, to perform said binary differencing, one or more portions of the binary representation of the primary state are compared to corresponding portions of the binary representation of the benchmark of the primary state to determine the modified attributes. With regard to this feature, the Examiner again cites paragraph [0566] and asserts "compare of the ATM connection table and device driver connection table and updates the ATM table since ATM application is a distributed application corresponds to the benchmark and primary attributes". As argued above with regard to claim 2, one skilled in the art would not mistake the ATM application of Everdell with a binary representation of a state of session data. Furthermore, Everdell nowhere mentions or suggests the binary differencing of the binary representations of states of session data as recited in the claims. For at least the reasons presented above, the rejection of claim 3 is not supported by the cited art and removal thereof is respectfully requested.

Claim 4, 14, 18, and 24

Regarding claim 4, in addition to the novel limitations of claim 1, Everdell fails to disclose that, to compare the primary state to a benchmark of the primary state, the system is further configured to perform object graph differencing of an object graph representation of the primary state and an object graph representation

of the benchmark of the primary state to determine the modified attributes. With regard to this feature, the Examiner asserts:

> Everdell, [0355], in which the NMS server sent to NMS client corresponds to the primary state is performed in object graph presentation, also, [0918], in which the threshold evaluation for resource attribute, and hardware resource corresponds to the comparison of primary and benchmark attribute in the object graph differencing form.

Appellant disagrees. Paragraph [0355] is not pertinent **at all** to the above recited feature of claim 4. In this paragraph, Everdell teaches that the NMS server sends data from the user profile to the NMS client to allow the NMS client to present the user with a GUI which includes a navigation tree. As one skilled in the art understands, a navigation tree which is presented to a user in a GUI **has nothing to do with** graph differencing of an object graph representation of the primary state and an object graph representation of the benchmark of the primary state **to determine the modified attributes**. Moreover, the information sent to the NMS client does not relate to the states of session data, much less the specific comparison of object graph representations of the states of session data recited in the claims. Paragraphs [0918] and [0919] relate to threshold evaluation of resources (e.g., to determine if the resources are within threshold or rules of the network in order to prevent resource starvation in the network). For example, a portion of [0918] recites: "in one embodiment, to establish a threshold evaluation for a resource attribute, a user (e.g., a network manager) selects a resource in graphical user interface (GUI) 895 (FIGS. 66a-66e) and then selects a Threshold menu option 1054 to cause a Threshold dialog box 1056 (FIG. 67) to be displayed." As argued above, displaying a GUI (and thereafter reacting to user input to display information regarding a resource) does not teach or suggest the object graph differencing of object graph representations of states of session data as recited in the claims. For at least the reasons presented above, the rejection of claim 4 is not supported by the cited art and removal thereof is respectfully requested.

Claim 5, 19, and 25

Regarding claim 5, in addition to the novel limitations of claim 4, Everdell fails to disclose that the attributes comprise objects organized according to an object graph representation, wherein, to perform object graph differencing, one or more objects in the object graph representation of the primary state are compared to corresponding instances of objects in an object graph representation of the benchmark of the primary state to identify the modified attributes of the primary state. With regard to this feature, the Examiner cites paragraphs [0918]-[0919] (described above) and paragraph [0924]. More specifically, the Examiner asserts: "in which the threshold dialog box includes many elements and user may accept the default value or select value from corresponding menus, NMS client may add new rules to pull-down menu corresponds to the compare and modify attributes of primary state". Essentially, the Examiner erroneously asserts that the simple fact that an administrator may assign threshold expressions to resources which are graphically displayed in a GUI somehow amounts to the specific graph differencing of object graph representations of states of session data (to determine modified attributes of the primary state) recited in the claims. One skilled in the art would not mistake a pull-down menu for assigning a threshold expression with comparing objects in the object graph representation of the primary state to corresponding instances of objects in an object graph representation of the benchmark of the primary state to identify modified attributes of the primary state. Modifying assigned threshold expressions is simply not pertinent to this specific comparison. **Additionally, Appellants note that this particular section makes no mention of comparison at all (much less the two object graph representations of the states of session data).** Instead, a single change to a single resource is disclosed. Everdell fails to mention a second object to which the first object of the single resource could be compared. Moreover, as argued above, the specific resources and threshold expressions do not constitute the object graph representations of states of session data recited in the claims. For at least the reasons presented above, the rejection of claim 5 is not supported by the cited art and removal thereof is respectfully requested.

Claim 6, 20. and 26

Regarding claim 6, in addition to the novel limitations of claim 1, Everdell fails to disclose that the another node comprising a back-up instance of the primary state is another node of the distributed store. With regard to this feature the Examiner asserts "Everdell, [0457] and [0462] in which the second connection (back-=up link) which derived from the first provisioning corresponds to the another node of the distributed store". Appellant notes that this second connection has nothing to do with the configuration database 42' cited by the Examiner as teaching the back-up instance of the primary state in claim 1. Moreover, this "second connection" still fails to teach or suggest the another node (in the distributed store) comprising a back-up instance of the primary state. For example, paragraph [0457] discloses "After provisioning services within a first network device, the network manager may open a connection with a second network device to provision services within that second network device". Thus, the network manager may establish a connection to a second device in the network in order to provision services. Appellant asserts that this has absolutely nothing to do with the claimed limitation recited above. One skilled in the art would not mistake a back-up instance of the primary state of session data with a second connection in a network. Additionally, Appellant notes that Everdell nowhere characterizes this second link as a "back-up link" which the Examiner erroneously asserts. Additionally, paragraph [0462] discloses that multiple templates may be used if multiple provisioning tasks are needed. Appellant asserts that templates are completely irrelevant with respect to the another node comprising back-up instance of the primary state recited in the claims. For at least the reasons presented above, the rejection of claim 6 is not supported by the cited art and removal thereof is respectfully requested.

Claim 7

Regarding claim 7, Everdell does not disclose a system configured to generate a set of the plurality of attributes that are mutable attributes for use in

synchronizing. The Examiner cites paragraphs [0202], [0489], and [0552]. Paragraph [0202] states in part:

> the NMS client validates the parameters as far as possible within the client's view of the device and passes (step 880, FIG. 3g) this run time/instance configuration data, including all configured SONET path parameters, to the NMS server.

Paragraph [0202] continues to disclose the validation procedure of the fully transferred configuration data set, but does not describe a system to generate a *set of the plurality of attributes* that are *mutable attributes* for use in *synchronizing*. Paragraphs [0489] and [0552] describe hot configuration changes and methods for system wide changes (e.g. implementing an evaluation system, and upon success, triggering the system wide change) respectively. Everdell fails to disclose, either at the cited passages or elsewhere, a system to generate a set of the plurality of the attributes that are mutable attributes for use in synchronizing. The Examiner does not provide further arguments specifically regarding the rejection of claim 7 and instead states that claim 7 has similar limitations as claim 1. **However, because claim 7 recites different limitations than claim 1 as well as the reasons mentioned above, the Examiner has not provided a proper rejection of claim 7. Appellants note that the Examiner has failed to ever respond to this argument** (presented in the non-final Response to Office Action of December 14, 2005). For at least the reasons presented above, the rejection of claim 7 is not supported by the cited art and removal thereof is respectfully requested.

Claim 8

Regarding claim 8, in addition to the novel limitations of claim 7, Everdell fails to disclose that the system is further configured to compare the set of the mutable attributes to a benchmark of the primary state to determine a subset of the attributes of the session data that have been modified in the primary state. Appellants note that the Examiner fails to present any separate arguments for this particular limitation. As argued above regarding claim 1, Everdell fails to teach or suggest comparing attributes to a benchmark of the primary state to determine a subset of the attributes of the session data that have been modified in the primary state.

Appellants' similarly assert that Everdell fails to disclose this specific comparison (in this case, of the mutable attributes of the session data). **No evidence has been brought forth by the Examiner indicating or explaining how Everdell teaches this limitation of claim 8.** Correspondingly, for at least the reasons presented above, the rejection of claim 8 is not supported by the cited art and removal thereof is respectfully requested.

Claim 9

Regarding claim 9, in addition to the novel limitations of claim 8, Everdell fails to disclose that, to compare the primary state to a benchmark of the primary state, the system is further configured to perform binary differencing of a binary representation of the primary state and a binary representation of the benchmark of the primary state to locate the modified attributes. The Examiner fails to provide arguments that address this specific claim and instead relies on the rejection of claim 2 (which depends from a different independent claim). Appellants argue that, for at least the reasons presented above regarding claim 2, the rejection of claim 9 is not supported by the cited art and removal thereof is respectfully requested.

Claim 10

Regarding claim 10, in addition to the novel limitations of claim 8, Everdell fails to disclose that, to compare the primary state to a benchmark of the primary state, the system is further configured to perform object graph differencing of an object graph representation of the primary state and an object graph representation of the benchmark of the primary state to locate the modified attributes. The Examiner fails to provide arguments that address this specific claim and instead relies on the rejection of claim 4 (which depends from a different independent claim). Appellants argue that, for at least the reasons presented above regarding claim 4, the rejection of claim 10 is not supported by the cited art and removal thereof is respectfully requested.

CONCLUSION

For the foregoing reasons, it is submitted that the Examiner's rejection of claims 1-26 was erroneous, and reversal of his decision is respectfully requested.

The Commissioner is authorized to charge the appeal brief fee of $500.00 and any other fees that may be due to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-12100/RCK. **Since this Appeal Brief is timely filed within the one month period from the mailing date of the Notice of Panel Decision, no extension of time fee should be due.** This Appeal Brief is submitted with a return receipt postcard.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

The following lists claims 1-26, incorporating entered amendments, as on appeal.

1. A system, comprising:

a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality of attributes;

another node comprising a back-up instance of the primary state;

wherein the system is configured to:

compare the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state; and

synchronize the back-up instance of the primary state with the primary state using the subset of the attributes of the session data.

2. The system as recited in claim 1, wherein, to compare the primary state to the benchmark of the primary state, the system is further configured to perform binary differencing of a binary representation of the primary state and a binary representation of the benchmark of the primary state to determine the modified attributes.

3. The system as recited in claim 2, wherein, to perform said binary differencing, one or more portions of the binary representation of the primary state are compared to corresponding portions of the binary representation of the benchmark of the primary state to determine the modified attributes.

4. The system as recited in claim 1, wherein, to compare the primary state to a benchmark of the primary state, the system is further configured to perform object graph differencing of an object graph representation of the primary state and an object graph representation of the benchmark of the primary state to determine the modified attributes.

5. The system as recited in claim 4, wherein the attributes comprise objects organized according to an object graph representation, wherein, to perform object graph differencing, one or more objects in the object graph representation of the primary state are compared to corresponding instances of objects in an object graph representation of the benchmark of the primary state to identify the modified attributes of the primary state.

6. The system as recited in claim 1, wherein the another node comprising a back-up instance of the primary state is another node of the distributed store.

7. A system comprising:

a distributed store node comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality of attributes;

another node comprising a back-up instance of the primary state;

wherein the system is configured to:

generate a set of the plurality of attributes that are mutable attributes for use in synchronizing the back-up instance of the primary state with the primary state; and

synchronize the back-up instance of the primary state with the primary state according to the generated set of the mutable attributes of the session data.

8. The system as recited in claim 7, wherein the system is further configured to compare the set of the mutable attributes to a benchmark of the primary state to determine a subset of the attributes of the session data that have been modified in the primary state.

9. The system as recited in claim 8, wherein, to compare the primary state to a benchmark of the primary state, the system is further configured to perform binary differencing of a binary representation of the primary state and a binary representation of the benchmark of the primary state to locate the modified attributes.

10. The system as recited in claim 8, wherein, to compare the primary state to a benchmark of the primary state, the system is further configured to perform object graph differencing of an object graph representation of the primary state and an object graph representation of the benchmark of the primary state to locate the modified attributes.

11. A system comprising:

a distributed store node comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality of attributes;

another node comprising another instance of the primary state;

means for determining a set of the attributes of the session data that differ between the primary state and the other instance of the primary state; and

means for synchronizing the other instance of the primary state with the primary state using the set of the attributes of the session data that differ between the primary state and the other instance of the primary state.

12. The system as recited in claim 11, wherein the means for determining a set of the attributes comprise comparing the primary state to a benchmark of the primary state to determine attributes of the session data that have been modified in the primary state.

13. The system as recited in claim 12, wherein, to compare the primary state to a benchmark of the primary state, the means further comprise performing binary differencing of a binary representation of the primary state and a binary representation of the benchmark of the primary state to locate the modified attributes.

14. The system as recited in claim 12, wherein, to compare the primary state to a benchmark of the primary state, the means further comprise performing object graph differencing of an object graph representation of the primary state and an object graph representation of the benchmark of the primary state to locate the modified attributes.

15. A method comprising:

providing access to a primary state of session data comprised by a distributed store node to a plurality of application servers, wherein the session data comprises a plurality of attributes;

comparing the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state; and

synchronizing the another instance of the primary state comprised by another node with the primary state using the subset of the attributes of the session data.

16. The method as recited in claim 15, wherein said comparing the primary state to a benchmark of the primary state comprises performing binary differencing of a binary representation of the primary state and a binary representation of the benchmark of the primary state to determine the modified attributes.

17. The method as recited in claim 16, wherein said performing binary differencing comprises comparing one or more portions of the binary representation of the primary state to corresponding portions of the binary representation of the benchmark of the primary state to determine the modified attributes.

18. The method as recited in claim 15, wherein said comparing the primary state to a benchmark of the primary state comprises performing object graph differencing of an object graph representation of the primary state and an object graph representation of the benchmark of the primary state to determine the modified attributes.

19. The method as recited in claim 18, wherein the attributes comprise objects organized according to an object graph representation, wherein performing object graph differencing comprises comparing one or more objects in the object graph representation of the primary state to corresponding instances of objects in an object graph representation of the benchmark of the primary state to identify the modified attributes of the primary state.

20. The method as recited in claim 15, wherein the other instance of the primary state is a backup of the primary state.

21. A tangible computer accessible medium, comprising software instructions executable to implement:

providing access to a primary state of session data comprised by a distributed store node to a plurality of application servers, wherein the session data comprises a plurality of attributes;

comparing the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state; and

synchronizing the another instance of the primary state comprised by another node with the primary state using the subset of the attributes of the session data.

22. The computer accessible medium as recited in claim 21, wherein said comparing the primary state to a benchmark of the primary state comprises performing binary differencing of a binary representation of the primary state and a binary representation of the benchmark of the primary state to determine the modified attributes.

23. The computer accessible medium as recited in claim 22, wherein said performing binary differencing comprises comparing one or more portions of the binary representation of the primary state to corresponding portions of the binary representation of the benchmark of the primary state to determine the modified attributes.

24. The computer accessible medium as recited in claim 21, wherein said comparing the primary state to a benchmark of the primary state comprises performing object graph differencing of an object graph representation of the primary state and an object graph representation of the benchmark of the primary state to determine the modified attributes.

25. The computer accessible medium as recited in claim 24, wherein the attributes comprise objects organized according to an object graph representation,

wherein said performing object graph differencing comprises comparing one or more objects in the object graph representation of the primary state to corresponding instances of objects in an object graph representation of the benchmark of the primary state to identify the modified attributes of the primary state.

26. The computer accessible medium as recited in claim 21, wherein the other instance of the primary state is a backup of the primary state.

IX. EVIDENCE APPENDIX

No evidence submitted under 37 CFR §§ 1.130, 1.131 or 1.132 or otherwise entered by the Examiner is relied upon in this appeal.

X. RELATED PROCEEDINGS APPENDIX

There are no related proceedings.